

REMARKS/ARGUMENTS

As the Examiner is aware, this case is part of an original “bulk filing” by Motorola. Special IDS procedures have been approved for these cases, and in this case several 1449’s have kindly been considered. A supplemental IDS is filed herewith.

The specification has been amended to provide literal support for, e.g., original claim 2. As the original claims make up a part of the specification, no new matter has been added.

The applied rejections are now moot in view of the amendment to Claim 1, specifying a novel and unobvious semiconductor structure where an amorphous intermediate layer in contact with a monocrystalline substrate is formed by oxidation of the substrate during formation of an overlying binary metal oxide material layer. As further specified in Claim 1, the binary metal oxide layer is formed in contact with the (eventual) amorphous intermediate layer.

Such a structure is not disclosed in the applied references, nor is the same suggested. Notably, for example, Yano, the primary reference, does not disclose the presence of any type of amorphous layer whatsoever. The secondary references thus cannot properly be used to modify the reference structure in order to insert such a layer – in particular an amorphous layer as claimed that is formed by oxidation of the substrate during formation of the binary metal oxide material layer.

As noted at specification page 5, lines 14ff, the claimed amorphous intermediate layer, when grown by oxidation of the substrate during growth of the binary layer, serves to relieve strain that otherwise can occur in the binary oxide layer as a result of differences in lattice constants between the substrate and binary oxide layer. Moreover, and as explained at specification page 5, lines 5-8, the formed binary metal oxide layer can form a relatively flat surface as compared to perovskite materials, thus avoiding the step height mismatch problems of such materials.

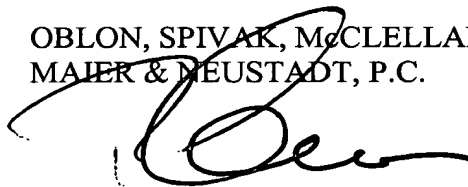
In view of the fact that no reference of record discloses the claimed structure resulting when an amorphous intermediate layer is formed by oxidation of a substrate during formation of an overlying binary metal oxide material layer, Applicants respectfully submit that the claims are patentable over the prior art.

In this regard, the claims herein have been amended in order to be free of the prior art, and amended in accordance with discussions held between Applicants and the Patent Office regarding the bulk filing cases. For example, these amendments place this case in condition for allowance by describing, in addition to other patentable features, a novel and unobvious semiconductor structure which is, itself, both novel and unobvious. These amendments have resulted both from a study of the references cited in the various IDSs in this "bulk filing," and from associated discussions with SPE Chaudhury, SPE Flynn, SPE Lee, and others at the PTO.

As noted above, the amendment to the rejected claims places this case in condition for allowance. In addition, it is not believed that a Terminal Disclaimer is necessary in view of the requirement in the claims for a binary oxide, which is different from other cases in this bulk filing. Accordingly, early notice to this effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Richard L. Treanor
Attorney of Record
Registration No. 36,379

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)